INTRODUCTION

In Southeast Asia, logging and shifting cultivation are often blamed as the main causes of forest loss and forest degradation (Fox 2000; Poffenberger 2001). Over the last few decades, governments as well as many international organizations have expended efforts to minimize the impact of forest loss and degradation in mainland Southeast Asia (Kashio 1994). This includes announcing a ban on logging, reclassification of forest categories, delineation of national forest reserves, relocating local populations, introducing alternative livelihood activities, and so forth (Peluso, 1992; Colchester, 1994; Peluso, et al., 1995). However, results of these government efforts were more disappointing than successful. In most cases, state intervention occurred in a top-down manner; increasing state power and control over resources while restricting local people’s access to resources (Peluso, 1992; Vandergeest, 1996; Wittayapak, 1996).

While forest is a biological habitat for living species, its definition and access is defined through social and political processes (Neumann, 1991; Fortmann, 1995; Vandergeest, 1996; Bryant, 1997). It thus becomes essential to understand how forest as a space is politically defined, and what institutional instruments are used by the state to mark its boundary, and to define its control over forest resources. Furthermore, it is also essential to understand how different groups of people interact through these spaces using different notions of resource boundaries and what actions are undertaken to justify their claims (Batterbury & Bebbington 1999).

The current paper examines the process by which the state defined forest and prescribed its resource use in Lao People’s Democratic Republic (Laos) through delineation of national reserve forest. In particular, the paper will examine a case of Phou Phanang National Reserve Forest (Phou Phanang) in northwest Vientiane to understand contesting factors between state conservation policy and customary resource management practices. First, a brief history of forest policy in Laos will be outlined to understand the process by which state developed its control over forest resources. This is followed by review of recent government efforts to reclassify forest and land types according to scientific forest management. The third section of the paper will review a case of Phou Phanang and its resource conflicts. Finally, the last section of the paper will examine the basis of current impasse in managing Phou Phanang as it became an ambiguous space open for resource exploitation.

Legacies of Rich Forest: Open Space, Encroachment and War

Long since its history, Lao People’s Democratic Republic (Laos) was known for its rich sources of forest and forest products (de Marini, 1663; Donnovan, 2002; Evans, 2002). Control over labour and forest products provided significant source of wealth for kings and tribal leaders in pre-colonial Laos. Political boundaries remained unclear to the eyes of outsiders for many centuries while forest, rivers and other natural landmarks served as a kind of a loose spatial buffer against the neighbouring political domains in Laos (Winichakul, 1994). The national boundary of Laos was first delineated in 1893.
following the Franco-Siam Treaty that created French Indochina, and made Laos a French protectorate. However, the forest in Laos remained vastly open and intact from colonial administration given its geographic isolation (Itsumi, 1943; Robequain, 1955; Osborne, 2001). It was only in 1930 that the French completed the first forest survey in Indochina. This survey indicated that more than 80 percent of total land in Laos was covered by forest, scoring high above other French colonies in Indochina (Table 1).

Table 1. Forest in French Indochina.

<table>
<thead>
<tr>
<th></th>
<th>Forest Area</th>
<th>Total Area</th>
<th>% of Forest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokin</td>
<td>6,943</td>
<td>11,570</td>
<td>0.60</td>
</tr>
<tr>
<td>Annan</td>
<td>6,500</td>
<td>14,760</td>
<td>0.44</td>
</tr>
<tr>
<td>Cochinchina</td>
<td>818</td>
<td>6,470</td>
<td>0.13</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7,824</td>
<td>18,100</td>
<td>0.43</td>
</tr>
<tr>
<td>Laos</td>
<td>20,346</td>
<td>23,140</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Source: Nanpo Nenkan (1943)

Legacy of rich forests in Laos, however, was never fully exploited by the French colonial administration, as natural barriers hindered transportation means. Ironically, it was during the period of Indochina War, that exploitation of forest resources, particularly timber, began to burgeon in areas along the Mekong River. While political disruption hindered the Royal Government of Laos to gain any significant control over forest resources, merchants took advantage of the situation and extracted timber without significant restrictions (United States Agency for International Development Mission to Laos 1970). Forest was also subject to encroachment during the period of war as it served as a battlefront and provided a shelter for thousands of refugees who fled their villages (Whitaker et al., 1971; Goudineau, 1997; Fujita, 2001). While the full extent of war on forests in Laos has never been studied, vast areas of rich forests in Laos were widely open for encroachment, extraction and destruction during the thirty years of Indochina War.

Post War Forest Management: Decentralization and Territorialization

Following the war in 1975, forest and land became the national property of the newly established Laos. Forestry gained a significant attention as a mean to reconstruct the war trodden national economy. Nine state-owned forestry enterprises were established with each enterprise controlling areas of forest sizing between 200,000 and 300,000 hectares (Persson, 1983). In addition to the state-owned forestry enterprises, each province established provincial forestry enterprises, partly to generate a self-sustaining income to supplement limited administrative budget from the central government. While some state enterprise received technical assistance from international organizations and bilateral aid agencies, equipments were often old and badly maintained. Lack of sustainable forest management plan also meant that production was inconsistent and incurred significant wastage (Brown & Zasloff, 1986; Southavilay & Castren u.d.).

The government efforts to increase its control over forest resources reached a new height in the late 1980s, as the first National Forestry Conference was convened. During the time, the first national forest reconnaissance survey was also conducted. Results of this survey indicated that dense forest covered 47 percent of total land in Laos (National Office of Forest Inventory and Planning, 1992). This was a reduction from 70 percent recorded in the 1970s (Tsechalicha & Gilmour, 2000). In addition, increased global environmental awareness in the early 1990s also prompted the Lao government to sign

1) The French had introduced a colonial forest management by delineating areas of forest under both private and public domain, as well as providing regulations for each types of forest. However, the mountainous features of Laos had inhibited much avid exploitation of forest products.

2) However, some note that extraction of non-timber forest products, and trade in wildlife had burgeoned in the post-war periods given growing demand across the border and availability of modern hunting gears (Duckworth et al. 1997).
international agreements on tropical forest conservation and to restructure its forest management framework (Ministry of Agriculture and Forestry, 1990). Increasingly, forest conservation gained precedence in the government policy. Protected Area System was introduced in 1993 designating 18 National Reserve Forests (paa sagogue) that covered approximately 14 percent of the total land. This was followed by development of legislations and laws that reclassified forest areas and prescribed its use and management.

As our brief overview of forestry policy indicates, the state control of forest was gradually strengthened in Laos since the period of late 1970s. This occurred first, through the establishment of state-owned forestry enterprises. However, provincial governments ruled forest resources almost autonomously throughout the 1980s. The second wave of state control arrived in the late 1980s as new awareness over forest conservation began to emerge, provoking the government to dismantle state-owned enterprise and to regulate commercial logging that were authorized autonomously by the provincial governments. Further development of forest management took place in the early 1990s, including the designation of national reserve forests in 1993 and delineation of village boundaries through implementation of Land and Forest Allocation (LFA).

**SIMPLIFICATION OF LAND AND FOREST**

Soon after the designation of national reserve forests, LFA was implemented to regulate widespread shifting cultivation practices in the upland areas by delineating village boundary and by zoning village land. Two legislations were stipulated in 1996 that standardized LFA into an eight-step process including delineation of village boundary, land zoning for sustainable management, allocation of land plots to households, and a regular monitoring of management plan by the village organization. LFA was implemented throughout the country as a means to legally define village boundary and to encourage sustainable resource management based on customary practice. The legal structure for land and forest management was further strengthened by the issuance of the Forest Law and the Land Law in 1996 and 1997 respectively that offered specific definitions of forest and land category within the village. Together, institutional development of forest and land management in the 1990s facilitated “simplification” of resources where state increased control over resources by reorganizing them in a visible unit (Scott, 1998).

Designation of national reserve forest is also a kind of simplification based on scientific classification of forest. Many researchers claim that delineation of wildlife sanctuaries and protected areas simplify complex resource tenure relationship that exist at the local level, and more frequently exclude customary resource users from their livelihood basis (Neumann, 1991; Vandergeest, 1996; Wittayapak, 1996; Sato, 2000). It is particularly claimed that enforcement of state forest boundary victimise rural poor who are highly dependent on day-to-day usage of natural resources, by alienating them from the resources. The problem is pertinent to Laos, as the delineation of national reserve forest, though unclear and ill defined, has ruled out human intervention within the boundary. Furthermore, delineation of village boundary and land use zoning, also place restriction on how and where households use resources and instigate new sets of resource conflicts (State Planning Committee, 2000; Vandergeest, 2002). In the following section, we will review a case of Phou Phanang National Reserve Forest Area located in northwest Vientiane and examine the historical factors that shaped the resource use, and how the delineation of new state forest boundary affect customary practices in its villages.

**PHOU PHANANG: OVERLAPPING BOUNDARIES**

**War and Demographic Movement in Phou Phanang**

Phou Phanang consists two mountain ranges and covers an area of 700 square kilometres (Fig. 1). It stretches between Vientiane Municipality and Vientiane Province in the northwest of the national capital Vientiane. Phou Phanang is among the 18 National Reserve Forests originally designated under the PM Decree 164 in 1993. However, much of its forest is degraded with large patches of bamboo growth. Its selection as the national forest reserve was based largely on a political decision, rather than for its ecological value, as the area had served as a communist stronghold during the Indochina War.

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3) Prime Minister Decree Number 164 in 1993 designated 18 paa sagogue in Laos. Significant support was provided by international agencies to develop frameworks for protected areas management in Laos. These include support from organizations such as the Swedish International Development Agency, Asian Development Bank, the World Conservation Union, World Wildlife Fund, as well as international development NGOs.

4) Two legislations are Instruction on the Continuation on Implementing Land management and Land-Forest Allocation (Prime Minister Decree Number 3) issued on 25 June 1996, and Instruction on Land Forest Allocation for Management and Use (Ministry of Agriculture and Forestry Regulation, Number 822) issued on 2 August 1996.
Furthermore, its proximity to the national capital, and its service as a watershed for three agricultural reservoirs located on the east of Phou Phanang gave its recognition as the national reserve forest.

There are 48 villages that share boundary with Phou Phanang with total of about 4,200 households. It was found that forty percent of the villages surrounding Phou Phanang were established in the last three decades, consisting a significant numbers of wartime migrants. Migration was particularly rampant between 1960 and 1970 when the US led military offensive intensified in the northeast Laos bordering Vietnam. Migrants gradually descended from the present day Houaphan and Xiengkhouang provinces. In the meantime, original villagers in the northern Phou Phanang out-migrated to areas along the National Route 13 and to urban centres of Vientiane. Thus, war instigated a significant demographic movement across Phou Phanang between 1960 and 1970. This also affected the land and forest use in the area, as the migrants sought refuge in forest and established makeshift villages. In addition, disruption by war made it impossible for the ruling government to effectively manage forest in Phou Phanang. Forest in Phou Phanang became an open access territory where new migrants encroached and pioneered forest to conduct shifting cultivation, and also where timber merchants engaged in unregulated commercial logging.

Post-war Forest Exploitation in Phou Phanang
Following the war in 1975, the new socialist government of Laos called for a restriction of shifting cultivation.
Simultaneously, the new government promoted commercial timber production throughout the country. Forests in Phou Phanang also gained attention for its economic potential and were placed under the control of the military-led State Forestry Enterprise Number 9 (SFE 9) that specialized on export logging. SFE 9 management area covered well over 420,000 hectares of forest in northwest Vientiane including areas of Phou Phanang. Its production capacity in 1983 was planned at an order of 29,000 cubic meters per year, which was among the highest in all of Laos together with SFE 3 also located in Vientiane (Persson, 1983). SFE 9’s intervention in Phou Phanang was prompted in particular as a Japanese furniture company extracted Mai Don (Pterocarpus macrocarpus) and Mai Tae Khaa (Afzelia xylocarpa). Logging roads were developed around the western side of Phou Phanang, which had been relatively inaccessible by timber merchants in the past. While SFE 9 extensively exploited Phou Phanang, this did not rule out local access to forest resources, as forest boundaries remained unmarked.

Following the government policy to dismantle state forest enterprise in the late 1980s, a new state forest boundary was imposed in 1993. This time Phou Phanang was delineated as national reserve forest where conservation was prioritised. This time state forest boundary was arbitrarily drawn at a contour line of 200 metres above the sea level. The new legislation not only distinguished forest boundary but also prohibited human intervention within Phou Phanang including shifting cultivation and logging.

Politics of State Forest Boundary
Following its designation as the national reserve forest, Phou Phanang’s management was placed under the Centre for Protected Areas Management and Watershed Management (CPAWM) at the Department of Forestry. In 1995, the new state forest boundary was announced to the District Forest Offices, together with prohibition of access to forest areas above 200 metres above sea level. This was followed by implementation of LFA across villages in Phou Phanang. Consequently, designation of Phou Phanang as the national reserve forest and implementation of LFA carved out Phou Phanang as the state forest7. However, neither the boundary nor the legally prescribed use of forest resources were strictly enforced and monitored by the central authority. This was due to lack of financial and human resources of the Department of Forestry, as well as due to lack of comprehensive management plan for national reserve forests.

In 1999, management responsibility of all national reserve forests was transferred from the CPAWM to the Division of Forest Resource Conservation at the Department of Forestry, as the Department was structurally reorganized. Concurrently, the actual administration and management of national reserve forests were nominally transferred to the Provincial and Municipality Forestry Offices as a government effort to decentralise management responsibilities to the local authorities. However, the effect of decentralised forest management remained insignificant given the lack of management framework and other resources.

At the village level, institution of state forest boundary had instigated confusion as the new state forest boundary overlapped with customary boundaries of villages. For example, a study conducted in one of the villages in Phou Phanang by Thonginmanivong & Fujita (in printing) indicates that customary village boundary perceived by the villagers far extends from the official boundary designated by LFA and stretches into areas of Phou Phanang. Furthermore, villagers continued to access Phou Phanang on daily basis for food foraging, hunting, and firewood collection. The kind of obscurity in Phou Phanang’s boundary and its management thus had led to a creation of “ambiguous land” or a land claimed by the state but used by the local people without a clear sense of property (Sato, 2000).

SIMPLIFICATION OF RESOURCE MANAGEMENT

While LFA was designed to decentralize management responsibilities to local villagers, it also facilitated “simplification” of resources. For example, the Forest Law in 1996 categorised forest land into five categories8. The Land Law in 1997 further classified all land across the country into eight categories9. Simplification of land and forest instigated resource conflicts as legal classifications of land and forest did not necessary reflect customary resource use pattern (Namura, 1998).

In the following section, we will see how “simplification” of resources bears impact to “outer resource zone” of villages

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7) In the meantime, Forest Law promulgated in 1996 acknowledges collection of forest products for household consumption and use (Article 28, 30 and 55). However, it is not clear how much degree of extraction is allowed for this purpose in the national reserve forest.
8) This includes protection forest, conservation forest, production forest, regeneration forest and degraded forest.
9) These include agricultural land, forest land, construction land, industrial land, communications and transportation land, cultural land, national defence land, and watershed protection land.
in Phou Phanang. In contrast to the rigidity of the new classification, resource boundary of the “outer resource zone” has always been extensive and inclusive. In the meantime, resource tenure in this “outer resource zone” has been flexible and dynamically adjusted amongst the community members based on mutual consent. Incompatibility of the newly instituted state boundary and the customary resource boundary thus resulted in creating a management vacuum in the state forest, complicating rather than simplifying the nature of conflicts.

**Customary Resource Use and Simplification of Land and Forest**

Customary village boundary was never mapped in the villages of Phou Phanang. However, each village cognitively recognized their boundary using natural landmarks such as streams, mountain and trees. These boundaries were not exclusive, as people from outside the village were allowed to access village resources based on mutual consent. For example, households from neighbouring villages often negotiated both formally and informally to use fallow land in neighbouring villages for swidden cultivation and for cattle grazing. Also, villagers from neighbouring villages freely foraged food items from forests in neighbouring villages.

With particular regards to customary land tenure, two significant distinctions are found between the lowland area that are located near residential area, and the upland areas remote from residential area. The first can also be called a village “core area”, while the latter is recognised as “outer resource zone” (Pravongvienkhm 1996). While land ownership in the core area is often distinguished in terms of ownership and its boundary, land ownership in the outer resource zone is often inconspicuous in terms of its boundary. The ownership is often temporary, based on household need for agricultural land.

The new legislation distinguishes land and forest types and how each category of land and forest should be managed. However, problems emerge as use and management of resources are prescribed for each type of land and forest without due consideration to customary resource management practice allowing flexible adjustment over space and time. For example, fallow land which is often locally recognized as paa lao is now technically classified into either “degraded forest (paa xut xom)” or “regenerating forest (paa feunfa)” depending on forest cover. While the Forest Law guarantees to allocate “degraded forest,” to individual households, household access to “regenerating forest” is denied (Forest Law, Article 20).

On the other hand, paa lao is customarily distinguished by the villagers based on years under fallow. It is further distinguished into two types paa lao on and paa lao kae. While paa lao on is a young fallow between 3 and 5 years, paa lao kae is a fallow over 10 years. Exclusivity of ownership gradually diminishes as the length of fallow period increases. This allows redistribution of agricultural land to households within the village. In the meantime, food and other resource collection in paa lao are generally allowed for all members of the village, as well as members outside the village.

In addition, there are other customary classification of forests including paa mai khok, paa mai pong (or paa mai phai) that are not mentioned in the legal statutes but are equally important for food foraging and collection of forest products. These are areas of open forests with shrubs and bamboo growth that had been pioneered as swidden in the past. These areas have been distinguished as “paa xom xai” or “paa xut xom” under the new Forest Law and are increasingly placed under private ownership following the implementation of LFA.

Furthermore, villagers distinguish rich forests as paa dong or paa dong dip, literally meaning areas of relatively dense tree stand. Use of forest resources in these forests are loosely regulated under the customary practice often allowing villagers to collect forest products for household consumption or tam maa haa kin while requiring mutual consent for activities such as logging and swidden cultivation. In certain cases, villages may have established a “paa dong chong,” or reserved rich forest that collectively restrains logging and swidden cultivation. “Paa xao” or ancestral forest is another kind of forest where cultural constraint deters local villagers from exploiting resources other than for the purpose of tam maa haa kin. The nature of loose customary management practice is generally based on mutual consent within village and with outside villages. There is no clear distinction of boundary or written agreements. On the other hand, Forest Law had introduced new types of forest such as “paa pongkan” or areas of forest for watershed protection and “paa saguan” or conservation forest that strictly prohibit human intervention. These classifications are based on scientific criteria and are distinguished on the map with directions for management.

Institutionalisation of national forest reserves and delineation of village boundary thus began to introduce new notion of

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10) Village boundaries were interviewed with village authorities during the fieldwork using both sketch map and aerial photo from 1998 produced by the Geography Department.

11) Pravongvienkhm (1997) takes note of the relative autonomy of the Lao peasant villages. Often, neighbouring villages shared natural resources based on informal agreements, and mutual consent. Ironically, incidences of resource use began to be notable as resource management became increasingly institutionalised in the early 1990s.
village resource boundary that are less familiar to local villagers. Furthermore, promulgation of government legislation such as the Forest Law, and the Land Law further enforced the notion of exclusive spatial boundary with prescribed use for each type of land and forest. While application of the new land and forest management institution is less troubling for permanent agricultural land in the lowland as well as settlement land where ownership of land plots are already well defined, its application in outer resource zone imposes constraints as it introduces rigid and often less flexible resource management practice in terms of both space and time.12

Institutional Boundary and Its Implication

The obscure management status of Phou Phanang has lead to create an “ambiguous land”. Furthermore, lack of a management framework and means to support local authorities combined with lack of recognition of customary resource boundaries have lead to a general management impasse across Phou Phanang. As a result, encroachment by new migrants and logging persist in Phou Phanang without effective means to control the problem.

Local perception of resource boundary is divergent and its management has long been based on flexible application in terms of both space and time. On the other hand, the current forest and land management institutions attempts to simplify resources by imposing boundaries and prescribing its use. However, we have seen that the current land and forest management institution complicates the local resource use rather than simplifying the problem. More efforts must be made not only to understand the local perception of resources and its management but also to integrate that into the policy development. This will further require, a deeper understanding of the local institutions.

REFERENCES


12 Under the current Land Law, the act of chap chong or private land use based on first-come-first-serve occupancy, is restricted (Land Law, Article 7).
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